

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An improved electronic chip package, comprising:
 - an electrical insulator;
 - top and bottom metallization layers associated with said insulator;
 - at least one integrated circuit (IC) device; and
 - an electrically insulating at least one heat pipe having at least two flat ceramic sides stacked placed between the electrical insulator and the IC device, and wherein one of said at least two flat ceramic sides is soldered to the IC device such that said IC device and said heat pipe comprise substantially the same electrical potential, wherein the wall of the heat pipe is constructed so that thermal stresses in the IC device are reduced.
2. (Original) The improved electronic chip package as recited in claim 1, further comprising a heat sink.
3. (Original) The improved electronic chip package as recited in claim 1, wherein the IC device is surface mounted.

4. (Original) The improved electronic chip package as recited in claim 1, wherein said heat pipe is constructed of copper.

5. (Original) The improved electronic chip package as recited in claim 1, wherein said IC device is an insulated gate bipolar transistor (IGBT) chip.

6. (Currently amended) An improved electronic chip package, comprising:

a case wall;

top and bottom metallization layers;

at least one integrated circuit (IC) device; and

at least one electrically insulating ceramic heat pipe placed

between the case wall and the IC device such that said IC device and said heat pipe comprise substantially the same electrical potential.

7. (Original) The improved electronic chip package as recited in claim 6, further comprising a heat sink.

8. (Original) The improved electronic chip package as recited in claim 6, wherein the IC device is surface mounted.

9. (Original) The improved electronic chip package as recited in claim 6, wherein said heat pipe is constructed of ceramic.

10. (Original) The improved electronic chip package as recited in claim 9, wherein said heat pipe is constructed of substances selected from the group consisting of aluminum oxide, aluminum nitride and beryllium oxide.

11. (Original) The improved electronic chip package as recited in claim 6, wherein said IC device is an insulated gate bipolar transistor (IGBT) chip.

12. (Currently amended) An improved electronic chip package, comprising:

an electrical insulator;

top and bottom metallization layers associated with said insulator;

and

at least one integrated circuit (IC) device, wherein the bottom metallization layer is connected to an electrically insulating at least one heat pipe such that said integrated circuit device and said ceramic heat pipe comprise substantially the same electrical potential.

13. (Original) The improved electronic chip package as recited in claim 12, wherein the IC device is surface mounted.

14. (New) An improved electronic chip package, comprising:
an electrical insulator;
top and bottom metallization layers associated with said insulator;
at least one integrated circuit device; and
a ceramic heat pipe comprising an envelope wall that defines a chamber with a wick positioned on at least one interior surface of said envelope wall and a working fluid disposed within said chamber, said heat pipe being positioned between said electrical insulator and said at least one integrated circuit device such that said at least one integrated circuit device and said ceramic heat pipe comprise substantially the same electrical potential.

15. (New) An improved electronic chip package, comprising:
an electrical insulator;
top and bottom metallization layers associated with said insulator;
at least one integrated circuit (IC) device; and
an electrically insulating heat pipe having two flat ceramic sides stacked between the electrical insulator and the IC device, wherein said two flat ceramic sides define a chamber therebetween with a wick positioned on at least one interior surface of said two flat ceramic sides and with a working fluid

disposed within said chamber, and further wherein one of said at least two flat ceramic sides is soldered to the IC device such that said IC device and said heat pipe comprise substantially the same electrical potential, wherein the wall of the heat pipe is constructed so that thermal stresses in the IC device are reduced.